Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A microwave plasma processing method ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

an H-plane slot antenna is provided ~~on~~ in a plasma head, slots of said H-plane slot antenna ~~are~~ being arranged alternately on both sides of ~~the~~ a centerline of ~~the~~ a waveguide with a pitch of λg/2 (λg: ~~guide~~ wavelength of the microwave within the waveguide), and a uniforming line ~~is~~ being provided with a distance from said ~~slot~~ slots to an emission end of said plasma head being ~~set to~~ n· λg/2 (~~where~~ n : ~~represents~~ an integral number).

2. (currently amended) A microwave plasma processing method ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

an E-plane slot antenna is provided ~~on~~ in a plasma head, slots of said E-plane slot antenna ~~are~~ being arranged along ~~the~~ a centerline of ~~the~~ a waveguide with a

pitch of λg (λg: ~~guide~~ wavelength of the microwave within the waveguide), and a uniforming line ~~is~~ being provided with a distance from said ~~slot~~ slots to an emission end of said plasma head being ~~set to~~ n· λg/2 (~~where~~ n : ~~represents~~ an integral number).

3. (currently amended) A microwave plasma processing method ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

a uniforming line ~~is~~ being provided ~~on the~~ in a plasma head, said uniforming line is ~~made~~ composed of a material with a high dielectric constant so as to reduce ~~the~~ a standing wave in ~~the~~ said plasma head.

4. (currently amended) A microwave plasma processing method ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

a uniforming line is provided ~~on~~ in ~~the~~ a plasma head, said uniforming line is composed of quartz, and an end portion thereof is extended by 1/4λ (where λ represents free space wavelength within the quartz) so as to reduce ~~the~~ a standing wave in said plasma head.

5. (currently amended) A microwave plasma processing method ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object

to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while the surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

a uniforming line is provided ~~on~~ in the plasma head, an electromagnetic wave absorbing ~~material~~ member with a high dielectric loss ~~is~~ being attached on an end of said uniforming line so as to reduce ~~the~~ a standing wave in ~~the~~ said plasma head.

6. (currently amended) A microwave plasma processing method ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

a film-~~deposition~~ forming gas is ~~passed~~ supplied to the surface of ~~said~~ the object to be processed by down-flowing through a film-~~deposition~~ forming gas feeding nozzle ~~arranged~~ provided in ~~the~~ a plasma head.

7. (currently amended) A microwave plasma processing method ~~for forming~~ in which a linear plasma is formed by using a microwave and for ~~processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

a film-~~deposition~~ forming gas is ~~passed~~ supplied to the surface of ~~said~~ the object to be processed by side-flowing through a film-~~deposition~~ forming gas feeding nozzle ~~arranged~~ provided in ~~the~~ a plasma head.

8. (currently amended) A microwave plasma processing method ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

a shield gas feeding pipe is connected for feeding a shield gas ~~to~~ into ~~the~~ a plasma head, a ~~resistance~~ buffer plate being provided for carrying out uniform feeding of the shield gas into ~~the~~ a plasma processing chamber on a downstream side of the shield gas feeding pipe ~~is arranged~~, and ~~a resistance~~ another buffer plate for carrying out homogeneous ~~discharge~~ exhaust of the gas ~~is~~ being provided on ~~discharge~~ an exhaust side.

9. (currently amended) A microwave plasma processing method according to claim 8, wherein gas shielding is provided in such manner that pressure $P_1$ in said plasma processing chamber is set to a value lower than pressure $P_3$ on ~~the~~ an outermost periphery of said plasma head, and the pressure $P_3$ is set to a value lower than the pressure $P_2$ near the ~~resistance~~ another buffer plate for carrying out ~~uniform~~ homogeneous gas ~~discharge~~ exhaust , ~~and that~~ whereby ~~the~~ leakage of the gas from ~~the~~ said plasma head is prevented.

10. (currently amended) A microwave plasma processing method according to any one of claims 1 ~~to~~ through 9, wherein said microwave plasma processing method is a microwave plasma CVD processing method.

11. (currently amended) A microwave plasma processing apparatus ~~for~~ in which ~~forming~~ a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under

a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining the~~ while a surface of the object to be processed is maintained at horizontal position with respect to said linear plasma, wherein;

an H-plane slot antenna is provided ~~on~~ in a plasma head, slots of said H-plane slot antenna ~~are~~ being arranged ~~along the centerline of the waveguide with a pitch of λg~~ alternately on both sides of a centerline of a waveguide with a pitch of λg/2(λg: ~~guide~~ wavelength of the microwave within the waveguide), and a uniforming line ~~is~~ being provided with a distance from said ~~slot~~ slots to an emission end of said plasma head being ~~set to~~ n· λg/2 (~~where~~ n : ~~represents~~ an integral number).

12. (currently amended) A microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein;

an E-plane slot antenna is provided ~~on~~ in a plasma head, slots of said E-plane slot antenna ~~are~~ being arranged along ~~the~~ a centerline of ~~the~~ a waveguide with a pitch of λg (λg: ~~guide~~ wavelength of the microwave within the waveguide), and a uniforming line ~~is~~ being provided with a distance from said ~~slot~~ slots to ~~the~~ an emission end of said plasma head being ~~set to~~ n· λg/2 (~~where~~ n : ~~represents~~ an integral number).

13. (currently amended) A microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being

moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

a uniforming line ~~is~~ being provided ~~on~~ in ~~the~~ a plasma head, said uniforming line is ~~made~~ composed of a material with a high dielectric constant so as to reduce ~~the~~ a standing wave in ~~the~~ said plasma head.

14. (currently amended) A microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

a uniforming line is provided ~~on~~ in ~~the~~ a plasma head, said uniforming line is ~~made~~ composed of quartz, an end portion thereof ~~is~~ being extended by 1/4λ (~~where~~ λ : ~~represents~~ free space wavelength of the microwave within the quartz) sp as to reduce ~~the~~ a standing wave in ~~the~~ said plasma head.

15. (currently amended) A microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

a uniforming line is provided ~~on~~ in ~~the~~ a plasma head, an electromagnetic wave absorbing ~~material~~ member with a high dielectric loss ~~is~~ being attached on an end of said uniforming line so as to reduce ~~the~~ a standing wave in ~~the~~ said plasma head.

16. (currently amended) A microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

a film-~~deposition~~ forming gas is ~~passed~~ supplied to the surface of ~~said~~ the object to be processed by down-flowing through a film-~~deposition~~ forming gas feeding nozzle ~~arranged~~ provided in the plasma head.

17. (currently amended) A microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

a film-~~deposition~~ forming gas is ~~passed~~ supplied to the surface of said object to be processed by side-flowing through a film-~~deposition~~ forming gas feeding nozzle ~~arranged~~ provided in the plasma head.

18. currently amended) A microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein:

a shield gas feeding pipe is connected for feeding a shield gas ~~to~~ into ~~the~~ a plasma head, a ~~resistance~~ buffer plate being provided for carrying out uniform feeding of the shield gas into ~~the~~ a plasma processing chamber on a downstream side of the shield gas feeding pipe ~~is arranged,~~ and ~~a resistance~~ another buffer plate for carrying out homogeneous ~~discharge~~ exhaust of the gas ~~is~~ being provided on ~~discharge~~ an exhaust side.

19. (currently amended) A microwave plasma processing apparatus according to claim 18, wherein gas shielding is provided in such manner that pressure $P_1$ in said plasma processing chamber is set to a value lower than pressure $P_3$ on ~~the~~ am outermost periphery of said plasma head, and the pressure $P_3$ is set to a value lower than the pressure $P_2$ near the ~~resistance~~ another buffer plate for carrying out ~~uniform~~ homogeneous gas ~~discharge~~ exhaust, ~~and that~~ whereby ~~the~~ leakage of the gas from ~~the~~ said plasma head is prevented.

20. (currently amended) A microwave plasma processing apparatus according to any one of claims 11 ~~to~~ through 19, wherein said microwave plasma processing method is a microwave plasma CVD processing method.

21. (currently amended) A plasma head of a microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein;

an H-plane slot antenna is provided ~~on~~ in a plasma head, slots of said H-plane slot antenna ~~are~~ being arranged alternately on both sides of ~~the~~ a centerline of ~~the~~ a

waveguide with a pitch of λg/2 (λg: ~~guide~~ wavelength of the microwave within the waveguide), and a uniforming line ~~is~~ being provided with a distance from said ~~slot~~ slots to an emission end of said plasma head being ~~set to~~ n· λg/2 (~~where~~ n : ~~represents~~ an integral number).

22. (currently amended) A plasma head of a microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein;

an E-plane slot antenna is provided ~~on~~ in a plasma head, slots of said E-plane slot antenna ~~are~~ being arranged along ~~the~~ a centerline of ~~the~~ a waveguide with a pitch of λg (λg: ~~guide~~ wavelength of the microwave within the waveguide), and a uniforming line ~~is~~ being provided with a distance from said ~~slot~~ slots to ~~the~~ an emission end of said plasma head being ~~set to~~ n· λg/2 (~~where~~ n : ~~represents~~ an integral number).

23. (currently amended) A plasma head of a microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein;

a uniforming line ~~is~~ being provided ~~on~~ in ~~the~~ a plasma head, said uniforming line is ~~made~~ composed of a material with a high dielectric constant so as to reduce ~~the~~ a standing wave in ~~the~~ said plasma head.

24. (currently amended) A plasma head of a microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near the atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein;

a uniforming line is provided ~~on~~ in ~~the~~ a plasma head, said uniforming line is ~~made~~ composed of quartz, an end portion thereof ~~is~~ being extended by 1/4λ (~~where~~ λ : ~~represents~~ free space wavelength of the microwave within the quartz) so as to reduce ~~the~~ a standing wave in ~~the~~ said plasma head.

25. (currently amended) A plasma head of a microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein;

a uniforming line is provided ~~on~~ in ~~the~~ a plasma head, an electromagnetic wave absorbing member with a high dielectric loss ~~is~~ being attached on an end of said uniforming line so as to reduce ~~the~~ a standing wave in ~~the~~ said plasma head.

26. (currently amended) A plasma head of a microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein;

a film-~~deposition~~ forming gas is ~~passed~~ supplied to the surface of ~~said~~ the object to be processed by down-flowing through a film-~~deposition~~ forming gas feeding nozzle ~~arranged~~ provided in ~~the~~ a plasma head.

27. (currently amended) A plasma head of a microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein;

a film-~~deposition~~ forming gas is ~~passed~~ supplied to the surface of ~~said~~ the object to be processed by side-flowing through a film-~~deposition~~ forming gas feeding nozzle ~~arranged~~ provided in ~~the~~ a plasma head.

28. (currently amended) A plasma head of a microwave plasma processing apparatus ~~for forming~~ in which a linear plasma is formed by using a microwave and ~~for processing~~ an object to be processed is subjected to processing under ~~the~~ atmospheric pressure or under a pressure near ~~the~~ atmospheric pressure when the object to be processed is being moved ~~by maintaining~~ while ~~the~~ a surface of the

object to be processed is maintained at a horizontal position with respect to said linear plasma, wherein;

a shield gas feeding pipe is connected for feeding a shield gas ~~to~~ into ~~the~~ a plasma head, a ~~resistance~~ buffer plate being ~~pr~~ provided for carrying out ~~uniform~~ homogeneous feeding of the shield gas into ~~the~~ a plasma processing chamber on a downstream side of the shield gas feeding pipe ~~is arranged~~, and a ~~resistance~~ another buffer plate for carrying out homogeneous ~~discharge~~ exhaust of the gas is provided on ~~discharge~~ an exhaust side.

29. (currently amended) A plasma head of a microwave plasma processing apparatus according to claim 28, wherein gas shielding is provided in such manner that pressure $P_1$ in said plasma processing chamber is set to a value lower than pressure $P_3$ on ~~the~~ an outermost periphery of said plasma head, and the pressure $P_3$ is set to a value lower than the pressure $P_2$ near the ~~resistance~~ another buffer plate for carrying out uniform gas ~~discharge~~ exhaust, ~~and that~~ whereby the leakage of the gas from ~~the~~ said plasma head is prevented.

30. (currently amended) A plasma head of a microwave plasma processing apparatus according to any one of claims 21 ~~to~~ through 29, wherein said microwave plasma processing apparatus is a microwave plasma CVD processing apparatus.

31. (currently amended) A method for manufacturing FPD or a semiconductor device, characterized in that ~~the product is manufactured~~ a film is formed by use of the microwave plasma processing method according to any one of claims ~~claim~~ 1 through 10.